

Mineral Industry Surveys

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ANTIMONY IN THE FOURTH QUARTER 2004

Domestic consumption of primary antimony in the fourth quarter of 2004 was estimated by the U.S. Geological Survey to be about 11% lower than that in the third quarter of 2004 and about the same as that in the fourth quarter of 2003. China was the main source for imported antimony metal and for oxide in the October/November period. Preliminary reported consumption for 2004 increased compared with the total for 2003.

Antimony prices rose moderately during the fourth quarter. The New York dealer price for antimony metal published by Platts Metals Week started the quarter in the range of \$1.28 to \$1.35 per pound. In late October, the range rose to a high of \$1.45 to \$1.55 per pound and finished the quarter in the range of \$1.33 to \$1.37 per pound.

Anhua Kuixi Antimony Industry Co. Ltd. (Hunan Province, China), an antimony smelter that was producing 2,400 metric tons per year of antimony trioxide, announced plans to build a new plant to produce antimony ingot. Anhua officials stated that competition was so strong among antimony trioxide smelters that profit margins were slim. Officials anticipated better profits from antimony ingot, most of which would be used for its antimony trioxide output (Metal-Pages, 2004b§1).

Nihon Seiko Co., Ltd. (Tokyo, Japan) has long been an important producer and user of antimony trioxide for fire

retardants for television sets as well as decolorizing and fining agents for television cathode ray tubes. The firm was founded in 1935 as Nakase Kogyo Co. to develop products using antimony, gold, and silver. Nihon's antimony products include those used in the manufacture of polyester fiber for textiles, and for a wide range of car parts, such as casting alloys for engines, friction materials for braking systems, and plastics for interior decorations (Metal-Pages, 2004c§).

The Chinese Ministry of Commerce published the official list of state-owned antimony producers and approved exporters for 2005. There are 10 state-owned antimony producers listed, including China Minmetals Corp., Guangdong Metals and Minerals I&E Group Corporation, Guangxi Huasheng Metals and Minerals Trading Corp., Guizhou Metals and Minerals I&E Corp., and Hsikwangshan Twinkling Star Antimony Corp. Among the 20 approved exporters were Guangxi China Antimony Chemical Corp., Guizhou Dongfeng Enterprise Group Corp., Hunan Huchang Antimony Corp., and Liuzhou China Tin Corp. (Metal-Pages, 2004a§).

Internet References Cited

Metal-Pages, 2004a (December 24), China lists approved antimony exporters, accessed January 4, 2005, via URL <http://www.metal-pages.com>.

Metal-Pages, 2004b (November 18), Kuixi Antimony sets up Sb ingot plant, accessed November 18, 2004, via URL <http://www.metal-pages.com>.

Metal-Pages, 2004c (December 24), Nihon Seiko's 2004-05 profits expected up 300-400%, accessed January 4, 2005, via URL <http://www.metal-pages.com>.

¹References that include a section mark (§) are found in the Internet References Cited section.

TABLE 1
SALIENT ANTIMONY STATISTICS¹

(Metric tons, antimony content, unless otherwise specified)

| | 2003 | 2004 | | | | |
|---|--------|---------------|----------------|--------------------|--------------------|--------------|
| | | First quarter | Second quarter | Third quarter | Fourth quarter | Year to date |
| Production: | | | | | | |
| Primary smelter ² | W | W | W | W | W | W |
| Secondary | 5,600 | 1,000 | 1,050 | 1,040 ^r | 677 | 3,770 |
| Imports for consumption: | 26,700 | 6,880 | 7,790 | 9,100 ^r | 6,830 ³ | 30,600 |
| Ore and concentrate | 412 | 60 | 938 | 615 ^r | 80 ³ | 1,690 |
| Metal | 4,670 | 1,770 | 1,670 | 2,550 ^r | 1,690 ³ | 7,670 |
| Oxide ⁴ | 21,600 | 5,050 | 5,180 | 5,930 ^r | 5,060 ³ | 21,200 |
| Exports: | 3,680 | 1,490 | 1,210 | 1,020 ^r | 487 ³ | 4,200 |
| Metal, alloys, and scrap (gross weight) | 771 | 167 | 99 | 156 ^r | 95 ³ | 517 |
| Oxide ⁴ | 2,910 | 1,320 | 1,110 | 863 ^r | 392 ³ | 3,680 |
| Consumption of primary antimony | 9,230 | 2,700 | 2,920 | 2,880 | 2,560 | 11,100 |
| Price: Average cents per pound ⁵ | 107.52 | 127.67 | 126.32 | 128.23 | 139.02 | 130.31 |
| Stocks, end of period ⁶ | W | 3,450 | 3,140 | 2,810 ^r | 2,030 | XX |

¹Revised. W Withheld to avoid disclosing company proprietary data. XX Not applicable.

²Data are rounded to no more than three significant digits, except prices.

³Nearly all primary smelter output is antimony trioxide.

⁴Data for October and November only; December data were not available at time of publication.

⁵Antimony content is calculated by the U.S. Geological Survey.

⁶New York dealer price for 99.5% to 99.6% metal, c.i.f. U.S. ports.

⁷Producer and consumer stocks.

TABLE 2
INDUSTRY STOCKS OF PRIMARY ANTIMONY IN THE UNITED STATES¹

(Metric tons, antimony content)

| Class of material | 2004 ² | | | |
|--------------------|-------------------|----------------|--------------------|----------------|
| | First quarter | Second quarter | Third quarter | Fourth quarter |
| Metal | 546 | W | W | W |
| Oxide | 2,680 | 1,830 | 1,690 | 1,570 |
| Other ³ | 230 | 1,310 | 1,120 ^r | 460 |
| Total | 3,450 | 3,140 | 2,810 ^r | 2,030 |

¹Revised. W Withheld to avoid disclosing company proprietary data.

²Data are rounded to no more than three significant digits; may not add to totals shown.

³Estimated 100% coverage based on reports from respondents who held 87% of the total stocks of antimony at the end of 2003.

⁴Includes ore and concentrate, sulfide, and residues.

TABLE 3
INDUSTRIAL CONSUMPTION OF PRIMARY ANTIMONY^{1,2}

(Metric tons, antimony content)

| Class of material consumed | 2003 | 2004 ² | | | | |
|----------------------------|-------|-------------------|----------------|---------------|----------------|--------|
| | | First quarter | Second quarter | Third quarter | Fourth quarter | Total |
| Oxide | 7,620 | 2,240 | 2,480 | 2,470 | 2,260 | 9,450 |
| Other ³ | 1,610 | 455 | 445 | 409 | 298 | 1,610 |
| Total | 9,230 | 2,700 | 2,920 | 2,880 | 2,560 | 11,100 |

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Estimated 100% coverage based on reports from respondents who consumed 29% of the total antimony in 2003.

³Includes ores and concentrates, metal, sulfide, and residues.

TABLE 4
REPORTED CONSUMPTION OF PRIMARY ANTIMONY, BY CLASS OF
MATERIAL PRODUCED¹

(Metric tons, antimony content)

| Product | 2003 | 2004 ² | | | | Total |
|-----------------------|-------|-------------------|----------------|---------------|----------------|--------|
| | | First quarter | Second quarter | Third quarter | Fourth quarter | |
| Metal ³ | 2,410 | 725 | 715 | 659 | 473 | 2,570 |
| Nonmetal ⁴ | 2,100 | 1,040 | 1,170 | 1,150 | 1,180 | 4,540 |
| Flame-retardants: | | | | | | |
| Plastics | 3,680 | 402 | 408 | 342 | 350 | 1,500 |
| Other ⁵ | 1,040 | 534 | 635 | 728 | 554 | 2,450 |
| Total | 4,720 | 935 | 1,040 | 1,070 | 904 | 3,950 |
| Total reported | 9,230 | 2,700 | 2,920 | 2,880 | 2,560 | 11,100 |

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Estimated 100% coverage based on reports from respondents who consumed 29% of the total antimony in 2003.

³Includes ammunition, antimonial lead, bearing metals and bearings, cable coverings, castings, sheet and pipe, and solder.

⁴Includes ammunition primers, pigments, ceramics and glass, and plastics.

⁵Includes adhesives, pigments, rubber, and textiles.

TABLE 5
U.S. IMPORTS FOR CONSUMPTION OF ANTIMONY, BY CLASS AND COUNTRY¹

(Metric tons, antimony content)

| Class and country | 2003 | 2004 | | | | | |
|---|--------|------------------|-----------|------------------|---------|----------|-----------------------------------|
| | | January- June | September | Third quarter | October | November | January- November ² |
| Ore and concentrate: | | | | | | | |
| China | 350 | 878 | 120 | 361 | 20 | 60 | 1,320 |
| Other | 63 | 120 | -- | 254 | -- | -- | 374 |
| Total | 412 | 998 | 120 | 615 | 20 | 60 | 1,690 |
| Metal: | | | | | | | |
| China | 3,350 | 2,290 | 747 | 1,600 | 682 | 827 | 5,400 |
| Mexico | 655 | 232 | 16 | 342 | 33 | 21 | 628 |
| Peru | 394 | 136 | 38 | 329 | -- | 36 | 501 |
| Other | 269 | 777 | 72 | 278 | 16 | 72 | 1,140 |
| Total | 4,670 | 3,440 | 873 | 2,550 | 731 | 957 | 7,670 |
| Oxide: ³ | | | | | | | |
| Belgium | 2,150 | 1,020 | 156 | 380 | 204 | 100 | 1,700 |
| China | 7,940 | 4,270 | 1,150 | 2,870 | 1,060 | 1,410 | 9,610 |
| Hong Kong | 1,430 | 199 | -- | 50 | 66 | 33 | 348 |
| Mexico | 7,240 | 4,090 | 884 | 2,440 | 1,010 | 1,050 | 8,590 |
| South Africa | 2,630 | 411 | 30 | 146 | 99 | -- | 656 |
| Other | 192 | 238 | 28 | 54 | 23 | 6 | 321 |
| Total | 21,600 | 10,200 | 2,250 | 5,930 | 2,460 | 2,610 | 21,200 |
| Grand total | 26,700 | 14,700 | 3,240 | 9,100 | 3,210 | 3,620 | 30,600 |
| Other antimony compounds (gross weight) | 59 | 41 | 7 | 109 | -- | -- | 150 |

-- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes revisions to prior months data.

³Antimony content is calculated by the U.S. Geological Survey.

Source: U.S. Census Bureau.